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Ducharme A (*see* Vermes et al). 2003;16:355-9
Dueñas-Carbajal R (*see* Espinola-Zavaleta et al). 2003;16:46-53
Dumont Y, Arsenault M. An alternative to standard continuity equation for the calculation of aortic valve area by echocardiography. 2003;16:1309-15

E

Eapen RS, Lemler MS, Scott WA, Ramaciotti C. Echocardiographic characteristics of perimembranous ventricular septal defects associated with aortic regurgitation. 2003;16:209-13
Earing MG, Ackerman MJ, O'Leary PW. Diastolic ventricular dysfunction as a marker for hypertrophic cardiomyopathy in a family with a novel alpha-tropomyosin mutation. 2003;16:698-702 (Case rep.)
Eco L (*see* Lowery et al). 2003;16:94-6 (Case rep.)
Edelman K (*see* Spencer et al). 2003;16:1244-51
Edwards P, Cohen GI. Both diastolic and systolic function alternate in pulsus alternans: a case report and review. 2003;16:695-7 (Case rep.)
Edwards WD (*see* Rozich et al). 2003;16:97-100 (Case rep.)
Egeblad H (*see* Poulsen et al). 2003;16:724-31
Eidem BW (*see* McMahon et al). 2003;16:1068-72
el Amine S (*see* Garot et al). 2003;16:1-8
El-Said H (*see* McMahon et al). 2003;16:1068-72
El-Sedfy GOM (*see* Li et al). 2003;16:1007-14
Enriquez-Sarano M (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Entwistle J III (*see* Loyd et al). 2003;16:770-3 (Case rep.)
Erbel R (*see* Zeidan et al). 2003;16:29-37
Erdol C (*see* Baykan et al). 2003;16:1024-30
Ernst SMPG (*see* Langerveld et al). 2003;16:841-9
Eroglu E, Di Salvo G, Herbots L, Herregods M-C, Sutherland GR. Restrictive left ventricular filling in hypereosinophilic syndrome as a result of partial cavity obliteration by an apical mass: a strain/strain rate study. 2003;16:1088-90 (Case rep.)
Espinola-Zavaleta N, Muñoz-Castellanos L, Attié F, Hernández-Morales G, Zamora-González C, Dueñas-Carbajal R, Granados N, Keirns C, Vargas-Barrón J. Anatomic three-dimensional echocardiographic correlation of bicuspid aortic valve. 2003;16:46-53
Esposito N (*see* D'Andrea et al). 2003;16:154-61
Esposito RA (*see* Grossi et al). 2003;16:751-5
Ethevenot G (*see* Isaaz et al). 2003;16:965-74
Everbach EC (*see* Sonne et al). 2003;16:1178-85
Exner B (*see* Voigt et al). 2003;16:415-23

F

Fang ZY (*see* Yuda et al). 2003;16:1163-70
Farrar MW, Taylor R, Gough S. Use of an echocardiographic contrast agent to establish safety of cardioversion in a patient with a ligated left atrial appendage. 2003;16:1316-7 (Case rep.)
Faxon DP (*see* Cheitlin et al). 2003;16:1091-110
Fedson S, Neithardt G, Thomas P, Lickerman A, Radzienda M, DeCara JM, Lang RM, Spencer KT. Unsuspected clinically important findings detected with a small portable ultrasound device in patients admitted to a general medicine service. 2003;16:901-5
Feigenbaum H (*see* Raisinghani et al). 2003;16:1037-42
Feldman T (*see* Sugeng et al). 2003;16:1292-1300
Ferraro P (*see* Denault et al). 2003;16:688-92 (Case rep.)
Ferreira A (*see* Lowery et al). 2003;16:94-6 (Case rep.)
Ferreira T (*see* Cardim et al). 2003;16:223-32
Fetterman RC (*see* Sosnovik et al). 2003;16:1267-73
Fisher NG (*see* Sakuma et al). 2003;16:15-21
Flachskampf FA (*see* Voigt et al). 2003;16:415-23
Forni A (*see* D'Andrea et al). 2003;16:154-61
Foster E (*see* Quiñones et al). 2003;16:379-402
Foster E (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Franchini M (*see* Dini et al). 2003;16:124-31
Fraser AG (*see* Davidavicius et al). 2003;16:299-308
Fraser AG (*see* Williams et al). 2003;16:293-6 (Case rep.)
Frassani R (*see* Morocutti et al). 2003;16:360-6
Frazin LJ. Transesophageal echocardiographic detection of thoracic aorta dissection extending into the celiac artery. 2003;16:1186-7 (Case rep.)
Frimm CC (*see* Tsutsui et al). 2003;16:469-75
Frommelt MA (*see* Frommelt et al). 2003;16:176-81 (Case rep.) Correction 2003;16:284
Frommelt PC, Pelech AN, Frommelt MA. Diastolic dysfunction in an unusual case of cardiomyopathy in a child: insights from Doppler and Doppler tissue imaging analysis. 2003;16:176-81 (Case rep.) Correction 2003;16:284
Fujii Y (*see* Sumida et al). 2003;16:712-5
Fukamach K (*see* Tabata et al). 2003;16:424-31
Fung KC, Tan HC, Kritharides L. Acute reductions in ventricular myocardial tissue velocities after direct current cardioversion of atrial fibrillation. 2003;16:656-63
Fyfe BS (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)

G

Galderisi M (*see* Chinali et al). 2003;16:54-60
Gallagher A (*see* Lowery et al). 2003;16:94-6 (Case rep.)
Galloway AC (*see* Grossi et al). 2003;16:751-5
Galloway AC (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Garcia F (*see* Crespo et al). 2003;16:182-4 (Case rep.)
Garcia MJ (*see* Novaro et al). 2003;16:170-5
Garcia MJ (*see* Yang et al). 2003;16:233-9
Garot J (*see* Garot et al). 2003;16:1-8
Garot P, Pascal O, Simon M, el Amine S, Benacerraf S, Champagne S, Benaiem N, Mazoit J-X, Hittinger L, Garot J, Dubois-Rande J-L, Gueret P, Teiger E. Usefulness of combined quantitative assessment of myocardial perfusion and velocities by myocardial contrast and Doppler tissue echocardiography during coronary blood flow reduction. 2003;16:1-8
Garrett PD, Boyd SYN, Bauch TD, Rubal BJ, Bulgrin JR, Kinkler ES Jr. Feasibility of real-time echocardiographic evaluation during patient transport. 2003;16:197-201
Gelsomino S (*see* Morocutti et al). 2003;16:360-6
Gersony WM (*see* LaCorte et al). 2003;16:442-7
Gillam LD (*see* Cheitlin et al). 2003;16:1091-110
Gilman G (*see* Al-Ahmari et al). 2003;16:884-9 (Case rep.)
Gin K (*see* Dokainish et al). 2003;16:664-9
Gisellu G (*see* Van Camp et al). 2003;16:263-70
Gjertsson P (*see* Bech-Hanssen et al). 2003;16:858-66
Glascock B (*see* Spencer et al). 2003;16:1244-51
Glascock BJ (*see* Border et al). 2003;16:988-94
Glower DD (*see* Atkins et al). 2003;16:922-30
Goldman JH (*see* Raisinghani et al). 2003;16:1037-42
Goldman ME (*see* Natanzon and Goldman). 2003;16:71-6
Goodman NC (*see* Sakuma et al). 2003;16:15-21
Gorcsan J III (*see* Quiñones et al). 2003;16:379-402
Gorcsan J III (*see* Spencer et al). 2003;16:1244-51
Gorodin P (*see* Loyd et al). 2003;16:770-3 (Case rep.)
Goto T (*see* Yanada et al). 2003;16:1226-30
Gough S (*see* Farrar et al). 2003;16:1316-7 (Case rep.)
Gradaus R (*see* Bruch et al). 2003;16:1031-6
Granados N (*see* Espinola-Zavaleta et al). 2003;16:46-53
Grayburn PA (*see* Roberts and Grayburn). 2003;16:1002-6 (Cardiac sonog. comm.)
Grayburn PA (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Greenberg N (*see* Popović et al). 2003;16:703-11
Greenberg NL (*see* Yang et al). 2003;16:233-9
Grohmann A (*see* Borges et al). 2003;16:254-62
Grossi EA, Bizekis CS, Sharony R, Saunders PC, Galloway AC, LaPietra A, Applebaum RM, Esposito RA, Ribakove GH, Culli-

ford AT, Kanchuger M, Kronzon I, Colvin SB. Routine intraoperative transesophageal echocardiography identifies patients with atheromatous aortas: impact on "off-pump" coronary artery bypass and perioperative stroke. 2003;16:751-5
Grossi EA (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Guarini P (*see* Ascione et al). 2003;16:437-41
Guarini P (*see* Ascione et al). 2003;16:1019-23
Gudas V (*see* Novak et al). 2003;16:497-8 (Case rep.)
Gudmundsson GS, Smull DL, Pisani BA, Bane CD, Mendez JC, Mullen GM, Jacobs WR. Increase in atrial size in long-term survivors of heart transplant. 2003;16:1043-8
Gudmundsson P (*see* Winter et al). 2003;16:464-8
Gueret P (*see* Garot et al). 2003;16:1-8
Guerra PG, Thibault B, Dubuc M, Talajic M, Roy D, Crépeau J, Nattel S, Tardif J-C. Identification of atrial tissue in pulmonary veins using intravascular ultrasound. 2003;16:982-7
Gunda M (*see* Hillis et al). 2003;16:638-45
Gunia S (*see* Bruch et al). 2003;16:1031-6
Gwechenberger M (*see* Klaar et al). 2003;16:949-57

H

Haddow S (*see* Sharma et al). 2003;16:202-8
Hagen ME (*see* Hillis et al). 2003;16:638-45
Hall M (*see* Kanarek et al). 2003;16:373-6 (Case rep.)
Hallioglu O (*see* Alehan and Hallioglu). 2003;16:91-3 (Case rep.)
Hamm B (*see* Borges et al). 2003;16:254-62
Hancock J (*see* Spencer et al). 2003;16:1244-51
Handschumacher MD (*see* Nesta et al). 2003;16:1301-8
Handschumacher MD (*see* Playford et al). 2003;16:832-40
Hanna RD (*see* Rozich et al). 2003;16:97-100 (Case rep.)
Harada K, Toyono M, Tamura M. Effects of balloon valvuloplasty on left anterior descending coronary artery blood flow in a neonate with critical aortic stenosis with transthoracic Doppler echocardiography. 2003;16:88-90 (Case rep.)
Harada N (*see* Wada et al). 2003;16:309-17
Harris KM, Schum KR, Knickelbine T, Hurrell DG, Koehler JL, Longe TF. Comparison of diagnostic quality of motion picture experts group-2 digital video with super VHS videotape for echocardiographic imaging. 2003;16:880-3
Hashimoto I (*see* Li et al). 2003;16:1211-6
Hashimoto K (*see* Hirooka et al). 2003;16:340-6
Hayano J (*see* Yanada et al). 2003;16:1226-30
Hedberg P, Jonason T, Henriksen E, Lönnberg I, Nilsson G, Pehrsson K, Ringqvist I. Mitral annulus motion compared with wall motion scoring index in the assessment of left ventricular ejection fraction. 2003;16:622-9
Hegazy A (*see* Abdelrahim et al). 2003;16:1231-6
Hendrickx G (*see* Van Camp et al). 2003;16:263-70
Henriksen E (*see* Hedberg et al). 2003;16:622-9
Herbots L (*see* Dambrauskaite et al). 2003;16:432-6
Herbots L (*see* Eroglu et al). 2003;16:1088-90 (Case rep.)
Hernández-Morales G (*see* Espinola-Zavaleta et al). 2003;16:46-53
Herregods M-C (*see* Davidavicius et al). 2003;16:299-308
Herregods M-C (*see* Eroglu et al). 2003;16:1088-90 (Case rep.)
Hiasa G (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Hillis GS, Mulvagh SL, Gunda M, Hagen ME, Reeder GS, Oh JK. Contrast echocardiography using intravenous octafluoropropane and real-time perfusion imaging predicts functional recovery after acute myocardial infarction. 2003;16:638-45
Hirata K (*see* Tokai et al). 2003;16:1252-57
Hirayama H (*see* Okazaki et al). 2003;16:738-44
Hirooka K, Naito J, Koretsune Y, Irino H, Abe H, Ichikawa M, Yasuoka Y, Yamamoto H, Hashimoto K, Chin W, Kusuoka H, Inoue M, Hori M. Analysis of transmural trends in myocardial integrated backscatter in patients with progressive systemic sclerosis. 2003;16:340-6
Hishitani T (*see* Sandor et al). 2003;16:745-50
Hittinger L (*see* Garot et al). 2003;16:1-8
Ho Y-L, Chen C-L, Hsu R-B, Lin L-C, Huang P-J. The correlation between expression of apoptosis-related proteins and myocardial functional reserve evaluated by dobutamine stress echocardiography in patients with dilated cardiomyopathy. 2003;16:931-6
Hohimer AR (*see* Broberg et al). 2003;16:814-23
Hojo Y (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Hole T, Vegsundvåg JÅ, Morstøl TH, Skjærpe T. Early changes in left ventricular volume and function are predictors for long-term remodeling in patients with acute transmural myocardial infarction and preserved systolic function. 2003;16:630-7
Hope MD, de la Pena E, Yang PC, Liang DH, McConnell MV, Rosenthal DN. A visual approach for the accurate determination of echocardiographic left ventricular ejection fraction by medical students. 2003;16:824-31
Hoque A (*see* Dawn et al). 2003;16:1274-86
Hori M (*see* Hirooka et al). 2003;16:340-6
Houltz E (*see* Bech-Hanssen et al). 2003;16:858-66
Howell JF (*see* Plana et al). 2003;16:1331-1333 (Case rep.)
Hozumi T (*see* Sugioka et al). 2003;16:1237-43
Hozumi T (*see* Tokai et al). 2003;16:1252-57
Hsu R-B (*see* Ho et al). 2003;16:931-6
Huang P-J (*see* Ho et al). 2003;16:931-6
Huang S-C (*see* Liang et al). 2003;16:476-9
Hueb WA (*see* Tsutsui et al). 2003;16:1191-3 (Case rep.)
Hughes CF (*see* Allman et al). 2003;16:188-90 (Case rep.)
Hung J (*see* Nesta et al). 2003;16:1301-8
Hunold P (*see* Zeidan et al). 2003;16:29-37
Huo D (*see* Sugeng et al). 2003;16:1292-1300
Hurrell DG (*see* Harris et al). 2003;16:880-3
Hutcheson KA (*see* Atkins et al). 2003;16:922-30

I

Ichikawa M (*see* Hirooka et al). 2003;16:340-6
Imazu M (*see* Shimizu et al). 2003;16:246-53
Inoue M (*see* Hirooka et al). 2003;16:340-6
Irino H (*see* Hirooka et al). 2003;16:340-6
Isaaz K, Bruntz JF, Da Costa A, Winninger D, Cerisier A, de Chillou C, Sadoul N, Lamaud M, Ethevenot G, Aliot E. Noninvasive quantitation of blood flow turbulence in patients with aortic valve disease using online digital computer analysis of Doppler velocity data. 2003;16:965-74
Ishikura F (*see* Okazaki et al). 2003;16:738-44
Ishimoto T (*see* Yamamoto et al). 2003;16:333-9
Iskander SS (*see* Plana et al). 2003;16:1331-1333 (Case rep.)
Isserow S (*see* Novak et al). 2003;16:497-8 (Case rep.)
Ito S (*see* Yamamoto et al). 2003;16:333-9
Ivarsen PI (*see* Poulsen et al). 2003;16:724-31
Iwanochko RM (*see* Yu et al). 2003;16:22-8
Iwata A (*see* Okazaki et al). 2003;16:738-44

J

Jaarsma W (*see* Langerveld et al). 2003;16:841-9
Jacobs LE (*see* Crespo et al). 2003;16:182-4 (Case rep.)
Jacobs WR (*see* Gudmundsson et al). 2003;16:1043-8
Jacobsen SJ (*see* Munagala et al). 2003;16:1049-56
Jagen MA (*see* Reynolds et al). 2003;16:67-70
Jamorski M (*see* Yu et al). 2003;16:22-8
Januzzi JL (*see* Sosnovik et al). 2003;16:1267-73
Jayaweera AR (*see* Bing et al). 2003;16:871-9
Jayaweera AR (*see* Dawson et al). 2003;16:1171-7
Jeon D-S, Luo H, Brasch AV, Nagai T, Miyamoto T, Mohsenifar Z, Siegel RJ. Superiority of 10% air–10% blood-saline mixture for measuring the velocity of tricuspid regurgitation in patients with severe emphysema. 2003;16:867-70
Jeong Y-H (*see* Song et al). 2003;16:850-7
Johnson GH (*see* Rozich et al). 2003;16:97-100 (Case rep.)
Jonason T (*see* Hedberg et al). 2003;16:622-9
Jones M (*see* Li et al). 2003;16:1211-6
Jones M (*see* Sitges et al). 2003;16:38-45
Jue J (*see* Dokainish et al). 2003;16:664-9
Jue J (*see* Novak et al). 2003;16:497-8 (Case rep.)
Jureidini SB, Marino CJ, Singh GK, Balfour IC, Rao PS, Chen S-c. Aberrant coronary arteries: a reliable echocardiographic screening method. 2003;16:756-63
Jutzy KR (*see* Varadarajan et al). 2003;16:890-3 (Case rep.)

K

Kachwalla H (*see* Allman et al). 2003;16:188-90 (Case rep.)
Kalapatapu SK (*see* Belkin et al). 2003;16:367-9 (Case rep.)
Kamenir SA (*see* Sharma et al). 2003;16:202-8
Kamp O (*see* Langerveld et al). 2003;16:841-9
Kamp O (*see* Mannaerts et al). 2003;16:101-9
Kanarek SE, Wright P, Liu J, Boglioli LR, Bajwa AS, Hall M, Kort S. Multiple fibroelastomas: a case report and review of the literature. 2003;16:373-6 (Case rep.)
Kanchuger M (*see* Grossi et al). 2003;16:751-5
Kang D-H (*see* Song et al). 2003;16:409-14
Kang D-H (*see* Song et al). 2003;16:850-7
Kang H-J, Kim Y-J, Sohn D-W, Oh B-H, Lee M-M, Park Y-B, Choi Y-S. Prediction of postoperative left ventricular systolic function with Doppler-derived dP/dt in patients with chronic aortic regurgitation. 2003;16:1111-5
Kantharia B (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)
Kaplan S (*see* Baykan et al). 2003;16:1024-30
Kapoor A (*see* Koch et al). 2003;16:894-6 (Case rep.)
Katayama M (*see* Yagi et al). 2003;16:975-81
Katz ES, Shah A, Rosenzweig BP, Tunick PA, Kronzon I. Bilateral pulmonary artery compression and obstruction by tumor: diagnosis by unusual Doppler flow patterns. 2003;16:185-7 (Case rep.)
Katz ES (*see* Kronzon et al). 2003;16:774-6 (Case rep.)
Kaul S (*see* Bing et al). 2003;16:871-9
Kaul S (*see* Dawson et al). 2003;16:1171-7
Kaul S (*see* Le et al). 2003;16:764-9
Kaul S (*see* Sakuma et al). 2003;16:15-21
Kawai J, Tanabe K, Morioka S, Shiotani H. Rapid freehand scanning three-dimensional echocardiography: accurate measurement of left ventricular volumes and ejection fraction compared with quantitative gated scintigraphy. 2003;16:110-5
Kawai J (*see* Sumida et al). 2003;16:712-5
Keirns C (*see* Espinola-Zavaleta et al). 2003;16:46-53
Kelder JC (*see* Langerveld et al). 2003;16:841-9
Khandheria BK (*see* Yip et al). 2003;16:1334-42 (Review article)
Khoo M (*see* Rottman et al). 2003;16:1150-7
Khoury AF (*see* Mazur et al). 2003;16:318-25
Khoury P (*see* Michelfelder et al). 2003;16:140-6
Kim J (*see* Song et al). 2003;16:409-14
Kim JH (*see* Song et al). 2003;16:409-14
Kim Y-H (*see* Song et al). 2003;16:409-14
Kim Y-J (*see* Kang et al). 2003;16:1111-5
Kim YJ (*see* Sitges et al). 2003;16:38-45
Kim Y-J (*see* Sohn et al). 2003;16:77-9
Kimball TR (*see* Border et al). 2003;16:988-94
Kimball TR (*see* Cheitlin et al). 2003;16:1091-110
Kimball TR (*see* Michelfelder et al). 2003;16:140-6
Kimball TR (*see* Spencer et al). 2003;16:1244-51
Kimball TR (*see* Zilberman et al). 2003;16:9-14
Kimura BJ, DeMaria AN. Time requirements of the standard echocardiogram: implications regarding limited studies. 2003;16:1015-8
Kimura G (*see* Yanada et al). 2003;16:1226-30
Kimura K (*see* Wada et al). 2003;16:309-17
Kinkler ES Jr (*see* Garrett et al). 2003;16:197-201
Kirkpatrick J (*see* Spencer et al). 2003;16:1244-51
Kirkpatrick J (*see* Sugeng et al). 2003;16:937-41
Kisanuki A (*see* Abdelrahim et al). 2003;16:1231-6
Kivelitz D (*see* Borges et al). 2003;16:254-62
Klaar U, Berger R, Gwechenberger M, Wutte M, Porenta G, Sochor H, Maurer G, Baumgartner H. Relationship between dobutamine response of dyssynergic myocardium and angiographically documented blood supply. 2003;16:949-57
Klarich KW (*see* Rozich et al). 2003;16:97-100 (Case rep.)
Klein G (*see* Schaefer et al). 2003;16:1144-9
Knickelbine T (*see* Harris et al). 2003;16:880-3
Knoebl P (*see* Bergler-Klein et al). 2003;16:1326-30 (Case rep.)
Knudson OA Jr (*see* Cayre et al). 2003;16:84-7 (Case rep.)
Ko H (*see* Sharma et al). 2003;16:202-8
Ko S-F (*see* Liang et al). 2003;16:476-9
Kobal S (*see* Neuman et al). 2003;16:494-6 (Case rep.)
Kobayashi K (*see* Nagai et al). 2003;16:808-13
Koch R, Kapoor A, Spencer KT. Stroke in patient with an intervalvular fibrosa pseudoaneurysm and aortic pseudoaneurysm. 2003;16:894-6 (Case rep.)
Koehler JL (*see* Harris et al). 2003;16:880-3
Koester H (*see* Breburda et al). 2003;16:347-54
Kohno N (*see* Shimizu et al). 2003;16:246-53
Kolias TJ (*see* Orsini et al). 2003;16:682-7
Konda T (*see* Sumida et al). 2003;16:712-5
Kondo S (*see* Nohtomi et al). 2003;16:457-63
Korcarz CE (*see* Caiani et al). 2003;16:116-23
Korcarz CE (*see* Mor-Avi et al). 2003;16:1258-66
Koretsune Y (*see* Hirooka et al). 2003;16:340-6
Koriyama C (*see* Abdelrahim et al). 2003;16:1231-6
Kort S (*see* Kanarek et al). 2003;16:373-6 (Case rep.)
Kort S (*see* Makaryus et al). 2003;16:194-6 (Case rep.)
Kort S (*see* Makaryus et al). 2003;16:1322-25 (Case rep.)
Kos T (*see* Bergler-Klein et al). 2003;16:1326-30 (Case rep.)
Kotler MN (*see* Crespo et al). 2003;16:182-4 (Case rep.)
Kovalchin J (*see* McMahon et al). 2003;16:1068-72
Kowalski M (*see* Davidavicius et al). 2003;16:299-308
Kraft CD (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Krakover R (*see* Leitman et al). 2003;16:403-8
Kremastinos DT (*see* Paraskevaidis et al). 2003;16:132-9
Krenning B (*see* Ten Cate et al). 2003;16:370-2 (Case rep.)
Kritharides L (*see* Fung et al). 2003;16:656-63
Kronzon I, Tunick PA, Rosenzweig BP, Katz ES, Colvin SB. Echocardiography in the identification of unusual surgical errors resulting from attempted closure of secundum atrial septal defects: report of two cases. 2003;16:774-6 (Case rep.)
Kronzon I (*see* Grossi et al). 2003;16:751-5
Kronzon I (*see* Katz et al). 2003;16:185-7 (Case rep.)
Kronzon I (*see* Reynolds et al). 2003;16:67-70
Kronzon I (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Kronzon I (*see* Sethi et al). 2003;16:1078-9 (Case rep.)
Kronzon I (*see* Shah and Kronzon). 2003;16:1080-1 (Case rep.)
Kronzon I (*see* Spevack et al). 2003;16:693-4 (Case rep.)
Kumanohoso T (*see* Abdelrahim et al). 2003;16:1231-6
Kumar D (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)
Kuo J (*see* Atkins et al). 2003;16:922-30
Kurrelmeyer K (*see* Plana et al). 2003;16:1331-1333 (Case rep.)
Kussmaul WG (*see* Cheitlin et al). 2003;16:1091-110
Kusuoka H (*see* Hirooka et al). 2003;16:340-6
Kuwahara E (*see* Abdelrahim et al). 2003;16:1231-6
Kuwata K (*see* Nohtomi et al). 2003;16:457-63

L

LaCorte JC, Cabreriza SE, Rabkin DG, Printz BF, Coku L, Weinberg A, Gersony WM, Spotnitz HM. Correlation of the Tei index with invasive measurements of ventricular function in a porcine model. 2003;16:442-7
Lafaro RJ (*see* Belkin et al). 2003;16:367-9 (Case rep.)
Laffey DM (*see* Rozich et al). 2003;16:97-100 (Case rep.)
Lai WW (*see* Sharma et al). 2003;16:202-8
Lamaud M (*see* Isaaz et al). 2003;16:965-74
Lammertin G (*see* Sugeng et al). 2003;16:937-41
Lammertin G (*see* Sugeng et al). 2003;16:1292-1300
Lang RM (*see* Caiani et al). 2003;16:116-23
Lang RM (*see* Fedson et al). 2003;16:901-5
Lang RM (*see* Mor-Avi et al). 2003;16:1258-66
Lang RM (*see* Spencer et al). 2003;16:1244-51
Lang RM (*see* Sugeng et al). 2003;16:937-41
Lang RM (*see* Sugeng et al). 2003;16:1292-1300
Lange PE (*see* Schmitz et al). 2003;16:221-2
Langerveld J, Valocik G, Plokker HWT, Ernst SMPG, Mannaerts HFJ, Kelder JC, Kamp O, Jaarsma W. Additional value of three-dimensional transesophageal echocardiography for patients with mitral valve stenosis undergoing balloon valvuloplasty. 2003;16:841-9
LaPietra A (*see* Grossi et al). 2003;16:751-5
Larrazet F (*see* Veyrat et al). 2003;16:1217-25
Le DE, Pelberg RA, Leong-Poi H, Bin J-P, Linden J, Kaul S. A1-receptor

blockade: a novel approach for assessing myocardial viability in chronic ischemic cardiomyopathy. 2003;16:764-9
Le DE (*see* Bing et al). 2003;16:871-9
Leal SMB (*see* Rodrigues et al). 2003;16:1198-200 (Case rep.)
Leal SMB (*see* Tsutsui et al). 2003;16:469-75
Leal SMB (*see* Tsutsui et al). 2003;16:1191-3 (Case rep.)
Leavitt M (*see* Nesta et al). 2003;16:1301-8
Lee JW (*see* Song et al). 2003;16:850-7
Lee K (*see* Broberg et al). 2003;16:814-23
Lee M-M (*see* Kang et al). 2003;16:1111-5
Lee P-K (*see* Dokainish et al). 2003;16:664-9
Lee S-W (*see* Song et al). 2003;16:409-14
Leitman M, Sidenko S, Wolf R, Sucher E, Rosenblatt S, Peleg E, Krakover R, Vered Z. Improved detection of inferobasal ischemia during dobutamine echocardiography with Doppler tissue imaging. 2003;16:403-8
Lemler MS (*see* Eapen et al). 2003;16:209-13
Lemos PA (*see* Tsutsui et al). 2003;16:469-75
Leong-Poi H (*see* Le et al). 2003;16:764-9
Leong-Poi H (*see* Sakuma et al). 2003;16:15-21
Lepor NE (*see* Naqvi and Lepor). 2003;16:289-92 (Case rep.)
Leung DY (*see* Allman et al). 2003;16:188-90 (Case rep.)
Lever HM (*see* Yang et al). 2003;16:233-9
Levine RA (*see* Nesta et al). 2003;16:1301-8
Levine RA (*see* Playford et al). 2003;16:832-40
Levine RA (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Lewis JF (*see* Aikat et al). 2003;16:1085-7 (Case rep.)
Lewis JF (*see* Quiñones et al). 2003;16:379-402
Li J (*see* Cheung et al). 2003;16:732-7
Li X, Jones M, Wang H-F, Davies CH, Swanson JC, Hashimoto I, Rusk RA, Schindera ST, Barber BJ, Sahn DJ. Strain rate acceleration yields a better index for evaluating left ventricular contractile function as compared with tissue velocity acceleration during isovolumic contraction time: an in vivo study. 2003;16:1211-6
Li X, Mack GK, Rusk RA, Dai X-N, El-Sedfy GOM, Davies CH, Sahn DJ. Will a handheld ultrasound scanner be applicable for screening for heart abnormalities in newborns and children? 2003;16:1007-14
Liang C-D, Ko S-F, Huang S-C. Echocardiographic guidance for transcatheter coil occlusion of patent ductus arteriosus in the catheterization laboratory. 2003;16:476-9
Liang DH (*see* Hope et al). 2003;16:824-31
Lickerman A (*see* Fedson et al). 2003;16:901-5
Limongelli G, Pacileo G, Cerrato F, Verrengia M, Di Simone A, Severino S, Sarubbi B, Calabrò R. Myocardial ultrasound tissue characterization in patients with hypertrophic cardiomyopathy: noninvasive evidence of electrical and textural substrate for ventricular arrhythmias. 2003;16:803-7
Limongelli G (*see* Pacileo et al). 2003;16:214-20
Lin L-C (*see* Ho et al). 2003;16:931-6
Linden J (*see* Le et al). 2003;16:764-9
Lindenmeier G (*see* Voigt et al). 2003;16:415-23
Lippolt P (*see* Schaefer et al). 2003;16:1144-9
Liu J (*see* Kanarek et al). 2003;16:373-6 (Case rep.)
Liu J (*see* Wada et al). 2003;16:309-17
Liu Z (*see* Loyd et al). 2003;16:770-3 (Case rep.)
Liu Z (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)
Lof J (*see* Sonne et al). 2003;16:1178-85
Lohse CM (*see* Olivier et al). 2003;16:1136-43
London V (*see* Van Camp et al). 2003;16:263-70
Longe TF (*see* Harris et al). 2003;16:880-3
Longo S (*see* Cardim et al). 2003;16:223-32
Lönnberg I (*see* Hedberg et al). 2003;16:622-9
Lorenzoni R, Cortigiani L, Magnani M, Desideri A, Bigi R, Manes C, Picano E. Cost-effectiveness analysis of noninvasive strategies to evaluate patients with chest pain. 2003;16:1287-91
Lowenstein J, Tiano C, Marquez G, Presti C, Quiroz C. Simultaneous analysis of wall motion and coronary flow reserve of the left anterior descending coronary artery by transthoracic Doppler echocardiography during dipyridamole stress echocardiography. 2003;16:607-13
Lowery MH, Martel JA, Zambrano JP, Ferreira A, Eco L, Gallagher A. Noncompaction of the ventricular myocardium: the use of contrast-enhanced echocardiography in diagnosis. 2003;16:94-6 (Case rep.)
Loyd A, Gorodin P, Liu Z, Capozzoli N, Nahar T, Entwistle J III, Vannan MA. Delineation of intracardiac shunts using contrast echocardiography. 2003;16:770-3 (Case rep.)
Loyd D (*see* Bech-Hanssen et al). 2003;16:858-66
Lucariello RJ (*see* Prakash et al). 2003;16:147-53
Lundergan CF (*see* Aikat et al). 2003;16:1085-7 (Case rep.)
Luo H (*see* Jeon et al). 2003;16:867-70
Luthringer DJ (*see* Neuman et al). 2003;16:494-6 (Case rep.)

M

Mack GK (*see* Broberg et al). 2003;16:814-23
Mack GK (*see* Li et al). 2003;16:1007-14
MacMillan R (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)
Madu EC (*see* Rottman et al). 2003;16:1150-7
Magnani M (*see* Lorenzoni et al). 2003;16:1287-91
Magyar WA (*see* Schoenhagen et al). 2003;16:277-84
Mahenthiran J (*see* Zelenka et al). 2003;16:1201-3 (Case rep.)
Mahoney DW (*see* Munagala et al). 2003;16:1049-56
Maisano F (*see* Agricola et al). 2003;16:61-6
Makaryus AN, Kort S, Rosman D, Vatsia S, Mangion JR. Successful surgical repair of a giant left main coronary artery aneurysm with arteriovenous fistula draining into a persistent left superior vena cava and coronary sinus: role of intraoperative transesophageal echocardiography. 2003;16:1322-25 (Case rep.)
Makaryus AN, Popowski B, Kort S, Paris Y, Mangion J. A rare case of Alström syndrome presenting with rapidly progressive severe dilated cardiomyopathy diagnosed by echocardiography. 2003;16:194-6 (Case rep.)
Malouf J (*see* Al-Ahmari et al). 2003;16:884-9 (Case rep.)
Malouf JF (*see* Modesto et al). 2003;16:191-3 (Case rep.)
Malouf JF (*see* Prasad et al). 2003;16:377-8 (Case rep.)
Manes C (*see* Lorenzoni et al). 2003;16:1287-91
Mangieri E, Tanzilli G, Barillà F, Pannitteri G, Acconcia MC, Mezzanotte R, Donati R, Comito C, Critelli G. Enoximone very low-dose dobutamine stress echocardiography: a new test for detecting viability in severe myocardial dysfunction after acute myocardial infarction. 2003;16:942-8
Mangion J (*see* Makaryus et al). 2003;16:194-6 (Case rep.)
Mangion JR (*see* Makaryus et al). 2003;16:1322-25 (Case rep.)
Mannaerts HFJ, van der Heide JA, Kamp O, Papavassiliu T, Marcus JT, Beek A, van Rossum AC, Twisk J, Visser CA. Quantification of left ventricular volumes and ejection fraction using freehand transthoracic three-dimensional echocardiography: comparison with magnetic resonance imaging. 2003;16:101-9
Mannaerts HFJ (*see* Langerveld et al). 2003;16:841-9
Maraj S (*see* Crespo et al). 2003;16:182-4 (Case rep.)
Marcus JT (*see* Mannaerts et al). 2003;16:101-9
Marino CJ (*see* Jureidini et al). 2003;16:756-63
Marks GF (*see* Mazur et al). 2003;16:318-25
Marquez G (*see* Lowenstein et al). 2003;16:607-13
Martel JA (*see* Lowery et al). 2003;16:94-6 (Case rep.)
Marwick TH (*see* Yuda et al). 2003;16:1163-70
Masani ND (*see* Williams et al). 2003;16:293-6 (Case rep.)
Masullo G (*see* Morocutti et al). 2003;16:360-6
Mathias W Jr (*see* Rodrigues et al). 2003;16:1198-200 (Case rep.)
Mathias W Jr (*see* Tsutsui et al). 2003;16:469-75
Mathias W Jr (*see* Tsutsui et al). 2003;16:1191-3 (Case rep.)
Matsumura Y (*see* Sugioka et al). 2003;16:1237-43
Matsuzaki M (*see* Wada et al). 2003;16:309-17
Mattioli AV, Bonatti S, Bonetti L, Mattioli G. Left atrial size after cardioversion for atrial fibrillation: effect of external direct current shock. 2003;16:271-6
Mattioli G (*see* Mattioli et al). 2003;16:271-6
Maurer G (*see* Bergler-Klein et al). 2003;16:1326-30 (Case rep.)
Maurer G (*see* Klaar et al). 2003;16:949-57
Maurer G (*see* Rosenhek et al). 2003;16:1116-27
Mazoit J-X (*see* Garot et al). 2003;16:1-8

Mazur W, Rivera JM, Khoury AF, Basu AG, Perez-Verdia A, Marks GF, Chang SM, Olmos L, Quiñones MA, Zoghbi WA. Prognostic value of exercise echocardiography: validation of a new risk index combining echocardiographic, treadmill, and exercise electrocardiographic parameters. 2003;16:318-25
McAleer EP (*see* Reynolds et al). 2003;16:1204-10 (Review article)
McCarthy PM (*see* Tabata et al). 2003;16:424-31
McClung JA (*see* Belkin et al). 2003;16:367-9 (Case rep.)
McConnell MV (*see* Hope et al). 2003;16:824-31
McCrindle BW (*see* Silversides et al). 2003;16:1057-62
McMahon CJ, Eidem BW, Bezold LI, Vargo T, Neish SR, Bricker JT, Kovalchin J, El-Said H. Is cardiac catheterization a prerequisite in all patients undergoing bidirectional cavopulmonary anastomosis? 2003;16:1068-72
Mehta S (*see* Sumner et al). 2003;16:1188-90 (Case rep.)
Melin JA (*see* Van Camp et al). 2003;16:263-70
Mendez JC (*see* Gudmundsson et al). 2003;16:1043-8
Merchant N (*see* Silversides et al). 2003;16:1057-62
Mercier L-A (*see* Vermes et al). 2003;16:355-9
Mertsch JA (*see* Sosnovik et al). 2003;16:1267-73
Messas E (*see* Nesta et al). 2003;16:1301-8
Meyer GP (*see* Schaefer et al). 2003;16:1144-9
Mezzanotte R (*see* Mangieri et al). 2003;16:942-8
Michelfelder EC, Witt SA, Khoury P, Kimball TR. Moderate-dose dobutamine maximizes left ventricular contractile response during dobutamine stress echocardiography in children. 2003;16:140-6
Michelfelder EC (*see* Border et al). 2003;16:988-94
Micheli G (*see* Dini et al). 2003;16:124-31
Miki A (*see* Okazaki et al). 2003;16:738-44
Militello MA (*see* Novaro et al). 2003;16:170-5
Minagoe S (*see* Abdelrahim et al). 2003;16:1231-6
Miyabe H (*see* Yanada et al). 2003;16:1226-30
Miyamoto T (*see* Jeon et al). 2003;16:867-70
Miyamoto T (*see* Neuman et al). 2003;16:494-6 (Case rep.)
Miyata K (*see* Nohtomi et al). 2003;16:457-63
Miyatake K (*see* Shimizu et al). 2003;16:246-53
Miyazaki C (*see* Takeuchi et al). 2003;16:614-21
Modesto KM, Pellikka PA, Malouf JF, Daly RC, Chandrasekaran K. Mycotic aneurysm of the left ventricle: echocardiographic diagnosis. 2003;16:191-3 (Case rep.)
Mogensen C-E (*see* Poulsen et al). 2003;16:724-31
Mohsenifar Z (*see* Jeon et al). 2003;16:867-70
Monaghan M (*see* Raisinghani et al). 2003;16:1037-42
Monaghan MJ (*see* Spencer et al). 2003;16:1244-51
Moosdorf R (*see* Breburda et al). 2003;16:347-54
Mor-Avi V, Korcarz CE, Collins KA, DeCara JM, Caiani EG, Lang RM. Simultaneous real-time echocardiographic imaging of myocardial perfusion and regional function using color-encoded, contrast-enhanced power modulation. 2003;16:1258-66
Mor-Avi V (*see* Caiani et al). 2003;16:116-23
Mor-Avi V (*see* Spencer et al). 2003;16:1244-51
Mor-Avi V (*see* Sugeng et al). 2003;16:1292-1300
Morioka N (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Morioka S (*see* Kawai et al). 2003;16:110-5
Morioka S (*see* Sumida et al). 2003;16:712-5
Morioka S (*see* Yagi et al). 2003;16:975-81
Morocutti G, Gelsomino S, Spedicato L, Toh HS, Pitzorno C, Masullo G, Bernardi G, Da Col P, Frassani R. Transesophageal echocardiography follow-up of patients undergoing replacement of the ascending aorta and aortic valve with a Cabrol procedure for chronic aneurysm and dissection. 2003;16:360-6
Morris GT (*see* Dawn et al). 2003;16:1274-86
Morstøl TH (*see* Hole et al). 2003;16:630-7
Mukai S (*see* Yanada et al). 2003;16:1226-30
Mullen GM (*see* Gudmundsson et al). 2003;16:1043-8
Müller S (*see* Ammer et al). 2003;16:80-3 (Case rep.)
Mulvagh SL (*see* Hillis et al). 2003;16:638-45
Munagala VK, Jacobsen SJ, Mahoney DW, Rodeheffer RJ, Bailey KR, Redfield MM. Association of newer diastolic function parameters with age in healthy subjects: a population-based study. 2003;16:1049-56
Muñoz-Castellanos L (*see* Espinola-Zavaleta et al). 2003;16:46-53
Murata K (*see* Wada et al). 2003;16:309-17
Murayama T (*see* Abdelrahim et al). 2003;16:1231-6
Muro T (*see* Sugioka et al). 2003;16:1237-43
Muro T (*see* Tokai et al). 2003;16:1252-57

N

Nagai H, Omi W, Yuasa T, Sakagami S, Takata S, Kobayashi K. Ultrasonic analysis of anthracycline-induced myocardial damage using cyclic variation of integrated backscatter. 2003;16:808-13
Nagai K (*see* Yagi et al). 2003;16:975-81
Nagai T (*see* Jeon et al). 2003;16:867-70
Nagasawa K (*see* Nohtomi et al). 2003;16:457-63
Nagaya N (*see* Shimizu et al). 2003;16:246-53
Nahar T (*see* Loyd et al). 2003;16:770-3 (Case rep.)
Naito J (*see* Hirooka et al). 2003;16:340-6
Naqvi TZ, Lepor NE. Diagnosis of coronary pseudoaneurysm by Optison. 2003;16:289-92 (Case rep.)
Naqvi TZ (*see* Raisinghani et al). 2003;16:1037-42
Narita H (*see* Yanada et al). 2003;16:1226-30
Narula J (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)
Nascimento SA (*see* Tsutsui et al). 2003;16:1191-3 (Case rep.)
Nasseri BA (*see* Wu et al). 2003;16:1158-62
Nasu M (*see* Yagi et al). 2003;16:975-81
Natanzon A, Goldman ME. Patent foramen ovale: anatomy versus pathophysiology—which determines stroke risk? 2003;16:71-6
Nattel S (*see* Guerra et al). 2003;16:982-7
Nayar AC (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Neish SR (*see* McMahon et al). 2003;16:1068-72
Neithardt G (*see* Fedson et al). 2003;16:901-5
Nešković AN (*see* Popović et al). 2003;16:703-11
Nesta F, Otsuji Y, Handschumacher MD, Messas E, Leavitt M, Carpentier A, Levine RA, Hung J. Leaflet concavity: a rapid visual clue to the presence and mechanism of functional mitral regurgitation. 2003;16:1301-8
Neuman Y, Luthringer DJ, Kobal S, Miyamoto T, Trento A, Siegel RJ. Multiple aortic valve papillary fibroelastoma: an unusual presentation of a rare tumor. 2003;16:494-6 (Case rep.)
Ni G (*see* Rottman et al). 2003;16:1150-7
Niggel J (*see* Tischler and Niggel). 2003;16:670-4
Nihoyannopoulos P (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Nikitin NP, Witte KKA, Thackray SDR, de Silva R, Clark AL, Cleland JGF. Longitudinal ventricular function: normal values of atrioventricular annular and myocardial velocities measured with quantitative two-dimensional color Doppler tissue imaging. 2003;16:906-21
Nilsson G (*see* Hedberg et al). 2003;16:622-9
Nishimura K (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Nissen SE (*see* Schoenhagen et al). 2003;16:277-84
Nixdorff U (*see* Voigt et al). 2003;16:415-23
Nohtomi Y, Takeuchi M, Nagasawa K, Arimura K-i, Miyata K, Kuwata K, Yamawaki T, Kondo S, Yamada A, Okamatsu S. Simultaneous assessment of wall motion and coronary flow velocity in the left anterior descending coronary artery during dipyridamole stress echocardiography. 2003;16:457-63
Nordlander R (*see* Alam et al). 2003;16:240-5
Novak PG, Isserow S, Gudas V, Jue J. Transesophageal echocardiographic identification of an aortic root to right atrial fistula in a patient with acute streptococcal aortic valve bacterial endocarditis. 2003;16:497-8 (Case rep.)
Novaro GM, Aronow HD, Militello MA, Garcia MJ, Sabik EM. Benzocaine-induced methemoglobinemia: experience from a high-volume transesophageal echocardiography laboratory. 2003;16:170-5

O

Oberdorfer J (*see* Sonne et al). 2003;16:1178-85
Ochiai Y (*see* Tabata et al). 2003;16:424-31
Oh B-H (*see* Kang et al). 2003;16:1111-5
Oh JK (*see* Bunch et al). 2003;16:1318-21 (Case rep.)

Oh JK (*see* Hillis et al). 2003;16:638-45
Ohte N (*see* Yanada et al). 2003;16:1226-30
Okada M (*see* Sumida et al). 2003;16:712-5
Okada Y (*see* Yagi et al). 2003;16:975-81
Okamatsu S (*see* Nohtomi et al). 2003;16:457-63
Okayama H, Sumimoto T, Nishimura K, Morioka N, Hiasa G, Hojo Y, Satoh H, Tomino T. Assessment of flow velocity in a bypass graft of the gastroepiploic artery by contrast-enhanced transabdominal Doppler echocardiography: a case report. 2003;16:999-1001 (Case rep.)
Okazaki J, Asanuma T, Miki A, Hirayama H, Otani K, Toshida T, Iwata A, Ishikura F, Beppu S. Myocardial blood flow parameters derived from contrast replenishment using harmonic power Doppler imaging are underestimated by ultrasound signal attenuation. 2003;16:738-44
Oki T (*see* Yamamoto et al). 2003;16:333-9
O'Leary PW (*see* Earing et al). 2003;16:698-702 (Case rep.)
O'Leary PW (*see* Olivier et al). 2003;16:1136-43
O'Leary PW (*see* Osranek et al). 2003;16:480-4
Oliveira AG (*see* Cardim et al). 2003;16:223-32
Olivier M, O'Leary PW, Pankratz VS, Lohse CM, Walsh BE, Tajik AJ, Seward JB. Serial Doppler assessment of diastolic function before and after the Fontan operation. 2003;16:1136-43
Olmos L (*see* Mazur et al). 2003;16:318-25
Omerovic E (*see* Bollano et al). 2003;16:326-32
Omi W (*see* Nagai et al). 2003;16:808-13
Oppizzi M (*see* Agricola et al). 2003;16:61-6
Orem C (*see* Baykan et al). 2003;16:1024-30
Orlando W (*see* DeGroff et al). 2003;16:162-9
Orsini AN, Kolias TJ, Strelich KR, Armstrong WF. Feasibility of transesophageal echocardiography with a ten-French monoplane probe. 2003;16:682-7
Osranek M, Bursi F, O'Leary PW, Bruce CJ, Sinak LJ, Chandrasekaran K, Seward JB. Hand-carried ultrasound-guided pericardiocentesis and thoracentesis. 2003;16:480-4
Ostrowski ML (*see* Plana et al). 2003;16:1331-1333 (Case rep.)
Otani K (*see* Okazaki et al). 2003;16:738-44
Otani S (*see* Takeuchi et al). 2003;16:614-21
Otsuji Y (*see* Abdelrahim et al). 2003;16:1231-6
Otsuji Y (*see* Nesta et al). 2003;16:1301-8
Otsuka R (*see* Tokai et al). 2003;16:1252-57
Otto CM (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Oyama R (*see* Wada et al). 2003;16:309-17

P

Pachinger O (*see* Ammer et al). 2003;16:80-3 (Case rep.)
Pacileo G, Calabrò P, Limongelli G, Russo MG, Pisacane C, Sarubbi B, Calabrò R. Left ventricular remodeling, mechanics, and tissue characterization in congenital aortic stenosis. 2003;16:214-20
Pacileo G (*see* Limongelli et al). 2003;16:803-7
Pai RG (*see* Varadarajan et al). 2003;16:890-3 (Case rep.)
Palmieri V, Arezzi E, Sabatella M, Celentano A. Interstudy reproducibility of parameters of left ventricular diastolic function: a Doppler echocardiography study. 2003;16:1128-35
Panda A (*see* Borges et al). 2003;16:254-62
Pankratz VS (*see* Olivier et al). 2003;16:1136-43
Pannitteri G (*see* Mangieri et al). 2003;16:942-8
Pantely GA (*see* Broberg et al). 2003;16:814-23
Panza JA (*see* Sitges et al). 2003;16:38-45
Papavassiliu T (*see* Mannaerts et al). 2003;16:101-9
Paraskevaidis IA, Dodouras T, Adamopoulos S, Kremastinos DT. Effects of dobutamine on left ventricular shape and geometry: an easy way to detect the functional status of chronic heart failure in patients with dilated cardiomyopathy. 2003;16:132-9
Paris Y (*see* Makaryus et al). 2003;16:194-6 (Case rep.)
Park Y-B (*see* Kang et al). 2003;16:1111-5
Parness IA (*see* Sharma et al). 2003;16:202-8
Parness IA (*see* Torres et al). 2003;16:1063-7
Pascal O (*see* Garot et al). 2003;16:1-8
Pasquet A (*see* Van Camp et al). 2003;16:263-70
Pearlman AS (*see* Cheitlin et al). 2003;16:1091-110
Pearlman AS (*see* Quiñones et al). 2003;16:379-402
Pehrsson K (*see* Hedberg et al). 2003;16:622-9
Pelberg RA (*see* Le et al). 2003;16:764-9
Pelech AN (*see* Frommelt et al). 2003;16:176-81 (Case rep.) Correction 2003;16:284
Peleg E (*see* Leitman et al). 2003;16:403-8
Pellerin D (*see* Veyrat et al). 2003;16:1217-25
Pellikka PA (*see* Modesto et al). 2003;16:191-3 (Case rep.)
Pereira A (*see* Cardim et al). 2003;16:223-32
Perez JE (*see* Spencer et al). 2003;16:1244-51
Perez-Verdia A (*see* Mazur et al). 2003;16:318-25
Perrault R (*see* Coisne et al). 2003;16:485-93
Petty RE (*see* Sandor et al). 2003;16:745-50
Philbrick JT (*see* Cheitlin et al). 2003;16:1091-110
Phillips P (*see* Sonne et al). 2003;16:1178-85
Picano E (*see* Bombardini et al). 2003;16:646-55
Picano E (*see* Lorenzoni et al). 2003;16:1287-91
Picard MH (*see* Playford et al). 2003;16:832-40
Picard MH (*see* Sosnovik et al). 2003;16:1267-73
Picard MH (*see* Wu et al). 2003;16:1158-62
Pierard LA (*see* Davidavicius et al). 2003;16:299-308
Pierre-Justin G (*see* Davidavicius et al). 2003;16:299-308
Pisacane C (*see* Pacileo et al). 2003;16:214-20
Pisani BA (*see* Gudmundsson et al). 2003;16:1043-8
Pitzorno C (*see* Morocutti et al). 2003;16:360-6
Plana JC, Iskander SS, Ostrowski ML, Howell JF, Kurrelmeyer K, Raizner AE, Zoghbi WA. Cardiac angiosarcoma: an unusual presentation simulating mitral stenosis and constrictive-effusive pericarditis. 2003;16:1331-1333 (Case rep.)
Playford DA, Levine RA, Picard MH, Handschumacher MD. Illusion of contraction from out-of-plane translation: can Doppler tissue velocities resolve it? 2003;16:832-40
Plokker HWT (*see* Langerveld et al). 2003;16:841-9
Poirier C (*see* Denault et al). 2003;16:688-92 (Case rep.)
Popovic ZB (*see* Yang et al). 2003;16:233-9
Popović ZB, Vuković M, Greenberg N, Vlahović A, Nešković AN, Thomas JD. Comparative value of single-beat load-independent contractility indices in dilated cardiomyopathy and mitral regurgitation. 2003;16:703-11
Popovich J (*see* Schoenhagen et al). 2003;16:277-84
Popowski B (*see* Makaryus et al). 2003;16:194-6 (Case rep.)
Porenta G (*see* Klaar et al). 2003;16:949-57
Porter TR (*see* Sonne et al). 2003;16:1178-85
Potts JE (*see* Sandor et al). 2003;16:745-50
Potts MT (*see* Sandor et al). 2003;16:745-50
Poulsen SH, Andersen NH, Ivarsen PI, Mogensen C-E, Egeblad H. Doppler tissue imaging reveals systolic dysfunction in patients with hypertension and apparent "isolated" diastolic dysfunction. 2003;16:724-31
Poulsen SH (*see* Andersen and Poulsen). 2003;16:716-23
Pozzoli M (*see* Dini et al). 2003;16:124-31
Prakash AM, Sun Y, Chiaramida SA, Wu J, Lucariello RJ. Quantitative assessment of pericardial effusion volume by two-dimensional echocardiography. 2003;16:147-53
Prasad A, Callahan MJ, Malouf JF. Acquired right atrial blood cyst: a hitherto unrecognized complication of cardiac operation. 2003;16:377-8 (Case rep.)
Presti C (*see* Lowenstein et al). 2003;16:607-13
Prince CR (*see* Dawn et al). 2003;16:1274-86
Printz BF (*see* LaCorte et al). 2003;16:442-7
Pu M, Stephenson ER Jr, Davidson WR Jr, Sun BC. An unexpected surgical complication of ventricular assist device implantation identified by transesophageal echocardiography: a case report. 2003;16:1194-7 (Case rep.)

Q

Qin JX (*see* Sitges et al). 2003;16:38-45
Quiñones MA, Douglas PS, Foster E, Gorcsan J III, Lewis JF, Pearlman AS, Rychik J, Salcedo EE, Seward JB, Stevenson JG, Thys DM, Weitz HH, Zoghbi WA. ACC/AHA clinical competence statement on echocardiography. 2003;16:379-402
Quiñones MA (*see* Mazur et al). 2003;16:318-25
Quinones MA (*see* Zoghbi et al). 2003;16:777-802 (ASE report)

Quiroz C (*see* Lowenstein et al). 2003;16:607-13

R

Rabkin DG (*see* LaCorte et al). 2003;16:442-7
Rademakers F (*see* Davidavicius et al). 2003;16:299-308
Radzienda M (*see* Fedson et al). 2003;16:901-5
Rafter P (*see* Dawson et al). 2003;16:1171-7
Rafter P (*see* Van Camp et al). 2003;16:263-70
Raisinghani A, Wei KS, Crouse L, Villanueva F, Feigenbaum H, Schiller NB, Weiss J, Naqvi TZ, Siegel R, Monaghan M, Goldman JH, DeMaria A. Myocardial contrast echocardiography (MCE) with triggered ultrasound does not cause premature ventricular complexes: evidence from PB127 MCE studies. 2003;16:1037-42
Raizner AE (*see* Plana et al). 2003;16:1331-1333 (Case rep.)
Rajaratnam R (*see* Allman et al). 2003;16:188-90 (Case rep.)
Rakowski H (*see* Cheitlin et al). 2003;16:1091-110
Rakowski H (*see* Yu et al). 2003;16:22-8
Rakowski H (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Ramaciotti C (*see* Eapen et al). 2003;16:209-13
Ramaswamy G (*see* Belkin et al). 2003;16:367-9 (Case rep.)
Rao PS (*see* Jureidini et al). 2003;16:756-63
Redfield MM (*see* Munagala et al). 2003;16:1049-56
Redington AN (*see* Cheung et al). 2003;16:732-7
Reeder GS (*see* Hillis et al). 2003;16:638-45
Regenfus M (*see* Voigt et al). 2003;16:415-23
Reibis RK (*see* Borges et al). 2003;16:254-62
Reis RP (*see* Cardim et al). 2003;16:223-32
Reulbach U (*see* Voigt et al). 2003;16:415-23
Reynolds HR, Jagen MA, Tunick PA, Kronzon I. Sensitivity of transthoracic versus transesophageal echocardiography for the detection of native valve vegetations in the modern era. 2003;16:67-70
Reynolds HR, Nayar AC, McAleer EP, Schwartz JD, Tunick PA, Applebaum RM, Colvin SB, Culliford AT, Galloway AC, Grossi EA, Ribakove GH, Kronzon I. Substernal epicardial echocardiography: review of a new technique. 2003;16:1204-10 (Review article)
Ribakove GH (*see* Grossi et al). 2003;16:751-5
Ribakove GH (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Ringqvist I (*see* Hedberg et al). 2003;16:622-9
Rinkevich D (*see* Dawson et al). 2003;16:1171-7
Ripoli A (*see* Bombardini et al). 2003;16:646-55
Rivera JM (*see* Mazur et al). 2003;16:318-25
Roberts BJ, Grayburn PA. Color flow imaging of the vena contracta in mitral regurgitation: technical considerations. 2003;16:1002-6 (Cardiac sonog. comm.)
Rocco A (*see* Chinali et al). 2003;16:54-60
Rodeheffer RJ (*see* Munagala et al). 2003;16:1049-56
Rodrigues ACT, Abreu E, DeMarchi LM, Mathias W Jr, Leal SMB, Andrade JL. Lung neoplasm mimicking an acute lateral myocardial infarction. 2003;16:1198-200 (Case rep.)
Roldan AO (*see* Cayre et al). 2003;16:84-7 (Case rep.)
Romano C (*see* Chinali et al). 2003;16:54-60
Rosenblatt S (*see* Leitman et al). 2003;16:403-8
Rosenhek R, Binder T, Maurer G, Baumgartner H. Normal values for Doppler echocardiographic assessment of heart valve prostheses. 2003;16:1116-27
Rosenthal DN (*see* Hope et al). 2003;16:824-31
Rosenzweig BP (*see* Katz et al). 2003;16:185-7 (Case rep.)
Rosenzweig BP (*see* Kronzon et al). 2003;16:774-6 (Case rep.)
Rosenzweig BP (*see* Sethi et al). 2003;16:1078-9 (Case rep.)
Rosman D (*see* Makaryus et al). 2003;16:1322-25 (Case rep.)
Rottman JN, Ni G, Khoo M, Wang Z, Zhang W, Anderson ME, Madu EC. Temporal changes in ventricular function assessed echocardiographically in conscious and anesthetized mice. 2003;16:1150-7
Rousseau JJ (*see* Cayre et al). 2003;16:84-7 (Case rep.)
Roy D (*see* Guerra et al). 2003;16:982-7
Rozich JD, Edwards WD, Hanna RD, Laffey DM, Johnson GH, Klarich KW. Mechanical prosthetic valve-associated strands: pathologic correlates to transesophageal echocardiography. 2003;16:97-100 (Case rep.)
Rubal BJ (*see* Garrett et al). 2003;16:197-201
Rumolo S (*see* Ascione et al). 2003;16:1019-23
Rusk RA (*see* Li et al). 2003;16:1007-14
Rusk RA (*see* Li et al). 2003;16:1211-6
Russo MG (*see* Pacileo et al). 2003;16:214-20
Rutsch W (*see* Borges et al). 2003;16:254-62
Rychik J (*see* Quiñones et al). 2003;16:379-402

S

Sabatella M (*see* Palmieri et al). 2003;16:1128-35
Sabharwal N (*see* Birns et al). 2003;16:995-8 (Case rep.)
Sabik EM (*see* Novaro et al). 2003;16:170-5
Sacra C (*see* Ascione et al). 2003;16:437-41
Sadoul N (*see* Isaaz et al). 2003;16:965-74
Sahn D (*see* Broberg et al). 2003;16:814-23
Sahn DJ (*see* Li et al). 2003;16:1007-14
Sahn DJ (*see* Li et al). 2003;16:1211-6
Sakagami S (*see* Nagai et al). 2003;16:808-13
Sakamoto K (*see* Takeuchi et al). 2003;16:614-21
Sakuma T, Leong-Poi H, Fisher NG, Goodman NC, Kaul S. Further insights into the no-reflow phenomenon after primary angioplasty in acute myocardial infarction: the role of microthromboemboli. 2003;16:15-21
Salcedo EE (*see* Quiñones et al). 2003;16:379-402
Samad B (*see* Alam et al). 2003;16:240-5
Sanchez L (*see* Coisne et al). 2003;16:485-93
Sandor GGS, Hishitani T, Petty RE, Potts MT, DeSouza A, DeSouza E, Potts JE. A novel Doppler echocardiographic method of measuring the biophysical properties of the aorta in pediatric patients. 2003;16:745-50
Sapp SK (*see* Schoenhagen et al). 2003;16:277-84
Sarubbi B (*see* D'Andrea et al). 2003;16:154-61
Sarubbi B (*see* Limongelli et al). 2003;16:803-7
Sarubbi B (*see* Pacileo et al). 2003;16:214-20
Satoh H (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Saunders PC (*see* Grossi et al). 2003;16:751-5
Sawada SG (*see* Zelenka et al). 2003;16:1201-3 (Case rep.)
Schaefer A, Klein G, Brand B, Lippolt P, Drexler H, Meyer GP. Evaluation of left ventricular diastolic function by pulsed Doppler tissue imaging in mice. 2003;16:1144-9
Scherillo M (*see* D'Andrea et al). 2003;16:154-61
Scherrer-Crosbie M (*see* Wu et al). 2003;16:1158-62
Schiller NB (*see* Raisinghani et al). 2003;16:1037-42
Schindera ST (*see* Li et al). 2003;16:1211-6
Schmitz L, Schneider MBE, Lange PE. Isovolumic relaxation time corrected for heart rate has a constant value from infancy to adolescence. 2003;16:221-2
Schneider MBE (*see* Schmitz et al). 2003;16:221-2
Schoenhagen P, Sapp SK, Tuzcu EM, Magyar WA, Popovich J, Boumitri M, Vince DG, Crowe T, Nissen SE. Variability of area measurements obtained with different intravascular ultrasound catheter systems: impact on clinical trials and a method for accurate calibration. 2003;16:277-84
Schum KR (*see* Harris et al). 2003;16:880-3
Schwartz JD (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Schwarzinger I (*see* Bergler-Klein et al). 2003;16:1326-30 (Case rep.)
Scott WA (*see* Eapen et al). 2003;16:209-13
Sears AL (*see* Sosnovik et al). 2003;16:1267-73
Segar DS (*see* Devarapalli and Segar). 2003;16:1082-4 (Case rep.)
Senior R (*see* Birns et al). 2003;16:995-8 (Case rep.)
Sethi JS, Shah A, Benenstein R, Rosenzweig BP, Tunick PA, Kronzon I. The A-dip of aortic regurgitation. 2003;16:1078-9 (Case rep.)
Severino S (*see* D'Andrea et al). 2003;16:154-61
Severino S (*see* Limongelli et al). 2003;16:803-7
Seward JB (*see* Al-Ahmari et al). 2003;16:884-9 (Case rep.)
Seward JB (*see* Olivier et al). 2003;16:1136-43
Seward JB (*see* Osranek et al). 2003;16:480-4
Seward JB (*see* Quiñones et al). 2003;16:379-402
Seward JB (*see* Takemoto et al). 2003;16:448-56

Shah A, Kronzon I. The enigma of occult mitral regurgitation in a patient with cardiogenic shock. 2003;16:1080-1 (Case rep.)
Shah A (*see* Katz et al). 2003;16:185-7 (Case rep.)
Shah A (*see* Sethi et al). 2003;16:1078-9 (Case rep.)
Shah AS (*see* Atkins et al). 2003;16:922-30
Shandas R (*see* DeGroff et al). 2003;16:162-9
Sharma S, Parness IA, Kamenir SA, Ko H, Haddow S, Steinberg LG, Lai WW. Screening fetal echocardiography by telemedicine: efficacy and community acceptance. 2003;16:202-8
Sharony R (*see* Grossi et al). 2003;16:751-5
Sheehan FH (*see* Dorosz et al). 2003;16:675-81
Sheikh I, Kumar D, Liu Z, Kantharia B, MacMillan R, Fyfe BS, Narula J, Vannan M. Novel uses of intracardiac echocardiography with a phased-array imaging catheter. 2003;16:1073-7 (Case rep.)
Shimizu Y, Uematsu M, Nagaya N, Yamagishi M, Yamamoto H, Miyatake K, Imazu M, Kohno N. Myocardial velocity gradient reflects the severity of myocardial damage regardless of the presence or absence of mitral regurgitation. 2003;16:246-53
Shiota T (*see* Sitges et al). 2003;16:38-45
Shiota T (*see* Yang et al). 2003;16:233-9
Shiotani H (*see* Kawai et al). 2003;16:110-5
Sidenko S (*see* Leitman et al). 2003;16:403-8
Siegel R (*see* Raisinghani et al). 2003;16:1037-42
Siegel RJ (*see* Jeon et al). 2003;16:867-70
Siegel RJ (*see* Neuman et al). 2003;16:494-6 (Case rep.)
Silversides CK, Veldtman GR, Crossin J, Merchant N, Webb GD, McCrindle BW, Siu SC, Therrien J. Pressure half-time predicts hemodynamically significant pulmonary regurgitation in adult patients with repaired tetralogy of Fallot. 2003;16:1057-62
Simon M (*see* Garot et al). 2003;16:1-8
Sinak LJ (*see* Osranek et al). 2003;16:480-4
Singh GK (*see* Jureidini et al). 2003;16:756-63
Sitges M, Jones M, Shiota T, Qin JX, Tsujino H, Bauer F, Kim YJ, Agler DA, Cardon LA, Zetts AD, Panza JA, Thomas JD. Real-time three-dimensional color Doppler evaluation of the flow convergence zone for quantification of mitral regurgitation: validation experimental animal study and initial clinical experience. 2003;16:38-45
Siu SC (*see* Silversides et al). 2003;16:1057-62
Siu SC (*see* Yu et al). 2003;16:22-8
Skjærpe T (*see* Hole et al). 2003;16:630-7
Skyba DM (*see* Yu et al). 2003;16:22-8
Sloggett CE (*see* Yu et al). 2003;16:22-8
Smallhorn JF (*see* Cheung et al). 2003;16:732-7
Smull DL (*see* Gudmundsson et al). 2003;16:1043-8
Sochor H (*see* Klaar et al). 2003;16:949-57
Sohn D-W, Choi R-K, Kim Y-J. Mechanism and incidence of notched pulmonary venous atrial reversal wave. 2003;16:77-9
Sohn D-W (*see* Kang et al). 2003;16:1111-5
Song H (*see* Song et al). 2003;16:850-7
Song J-K, Jeong Y-H, Kang D-H, Song J-M, Song H, Choo SJ, Lee JW, Song MG. Echocardiographic and clinical characteristics of aortic regurgitation because of systemic vasculitis. 2003;16:850-7
Song J-K (*see* Song et al). 2003;16:409-14
Song J-M, Kim JH, Kim Y-H, Lee S-W, Yoon Y-J, Kim J, Kang D-H, Song J-K. Temporal changes and histologic relation of postsystolic thickening in an animal model of acute ischemia and reperfusion. 2003;16:409-14
Song J-M (*see* Song et al). 2003;16:850-7
Song MG (*see* Song et al). 2003;16:850-7
Sonne C, Xie F, Lof J, Oberdorfer J, Phillips P, Everbach EC, Porter TR. Differences in Definity and Optison microbubble destruction rates at a similar mechanical index with different real-time perfusion systems. 2003;16:1178-85
Sosnovik DE, Januzzi JL, Church CC, Mertsch JA, Sears AL, Fetterman RC, Walovitch RC, Picard MH. Measurement of radial artery contrast intensity to assess cardiac microbubble behavior. 2003;16:1267-73
Spedicato L (*see* Morocutti et al). 2003;16:360-6
Spencer KT, Mor-Avi V, Kirkpatrick J, Gorcsan J III, Kimball TR, Monaghan MJ, Perez JE, Weinert L, Bednarz J, Edelman K, Glascock B, Hancock J, Baumann C, Lang RM. Normal values of left ventricular systolic and diastolic function derived from signal-averaged acoustic quantification waveforms: a multicenter study. 2003;16:1244-51
Spencer KT (*see* Fedson et al). 2003;16:901-5
Spencer KT (*see* Koch et al). 2003;16:894-6 (Case rep.)
Spencer KT (*see* Sugeng et al). 2003;16:937-41
Spencer KT (*see* Sugeng et al). 2003;16:1292-1300
Spevack DM, Tunick PA, Kronzon I. Unusual right ventricular flow pattern in a patient with inferior wall myocardial infarction. 2003;16:693-4 (Case rep.)
Spicer RL (*see* Border et al). 2003;16:988-94
Spotnitz HM (*see* LaCorte et al). 2003;16:442-7
Srivastava S (*see* Torres et al). 2003;16:1063-7
Stein JH (*see* Bisinov et al). 2003;16:897-8 (Case rep.)
Steinberg LG (*see* Sharma et al). 2003;16:202-8
Stephenson ER Jr (*see* Pu et al). 2003;16:1194-7 (Case rep.)
Stephenson ER (*see* Sumner et al). 2003;16:1188-90 (Case rep.)
Stevenson JG (*see* Quiñones et al). 2003;16:379-402
Stewart WJ (*see* Zoghbi et al). 2003;16:777-802 (ASE report)
Stoddard MF (*see* Dawn et al). 2003;16:1274-86
Strelich KR (*see* Orsini et al). 2003;16:682-7
Streubel B (*see* Bergler-Klein et al). 2003;16:1326-30 (Case rep.)
Sucher E (*see* Leitman et al). 2003;16:403-8
Sugeng L, Kirkpatrick J, Lang RM, Bednarz JE, DeCara JM, Lammertin G, Spencer KT. Biplane stress echocardiography using a prototype matrix-array transducer. 2003;16:937-41
Sugeng L, Weinert L, Lammertin G, Thomas P, Spencer KT, DeCara JM, Mor-Avi V, Huo D, Feldman T, Lang RM. Accuracy of mitral valve area measurements using transthoracic rapid freehand 3-dimensional scanning: comparison with noninvasive and invasive methods. 2003;16:1292-1300
Sugioka K, Hozumi T, Watanabe H, Yamagishi H, Matsumura Y, Takemoto Y, Muro T, Yoshiyama M, Takeuchi K, Yoshikawa J. Rapid and accurate noninvasive assessment of global left ventricular systolic function using biplane advanced automated contour tracking method. 2003;16:1237-43
Sumida T, Tanabe K, Yagi T, Kawai J, Konda T, Fujii Y, Okada M, Yamaguchi K, Tani T, Morioka S. Single-beat determination of Doppler-derived aortic flow measurement in patients with atrial fibrillation. 2003;16:712-5
Sumimoto T (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Sumner AD, Bobin JJ, Mehta S, Stephenson ER. Traumatic aortic transection with intraluminal aortic fat: transesophageal echocardiographic characteristics and implications. 2003;16:1188-90 (Case rep.)
Sun BC (*see* Pu et al). 2003;16:1194-7 (Case rep.)
Sun JP (*see* Yang et al). 2003;16:233-9
Sun Y (*see* Prakash et al). 2003;16:147-53
Sutherland GR (*see* Dambrauskaite et al). 2003;16:432-6
Sutherland GR (*see* Davidavicius et al). 2003;16:299-308
Sutherland GR (*see* Eroglu et al). 2003;16:1088-90 (Case rep.)
Swanson JC (*see* Li et al). 2003;16:1211-6

T

Tabata T, Cardon LA, Armstrong GP, Fukamach K, Takagaki M, Ochiai Y, McCarthy PM, Thomas JD. An evaluation of the use of new Doppler methods for detecting longitudinal function abnormalities in a pacing-induced heart failure model. 2003;16:424-31
Tabata T (*see* Yamamoto et al). 2003;16:333-9
Tahlil W (*see* Al-Ahmari et al). 2003;16:884-9 (Case rep.)
Tajik AJ (*see* Al-Ahmari et al). 2003;16:884-9 (Case rep.)
Tajik AJ (*see* Olivier et al). 2003;16:1136-43
Takada N (*see* Yanada et al). 2003;16:1226-30
Takagaki M (*see* Tabata et al). 2003;16:424-31
Takaki A (*see* Wada et al). 2003;16:309-17
Takasaki K (*see* Abdelrahim et al). 2003;16:1231-6
Takata S (*see* Nagai et al). 2003;16:808-13
Takemoto Y, Tanabe K, Chandrasekaran K, Ballman KV, Seward JB, Belohlavek M. Single-plane and biplane echocardiography: use of targeted scan planes improves the estimates of left ventricular volume and shape for analysis of postinfarction remodeling. 2003;16:448-56
Takemoto Y (*see* Sugioka et al). 2003;16:1237-43

Takeuchi K (*see* Sugioka et al). 2003;16:1237-43
Takeuchi M, Miyazaki C, Yoshitani H, Otani S, Sakamoto K, Yoshikawa J. Which is the better method in detecting significant left anterior descending coronary artery stenosis during contrast-enhanced dobutamine stress echocardiography: coronary flow velocity reserve or wall-motion assessment? 2003;16:614-21
Takeuchi M (*see* Nohtomi et al). 2003;16:457-63
Talajic M (*see* Guerra et al). 2003;16:982-7
Talley JD (*see* Dawn et al). 2003;16:1274-86
Tamita K (*see* Yagi et al). 2003;16:975-81
Tamura M (*see* Harada et al). 2003;16:88-90 (Case rep.)
Tan HC (*see* Fung et al). 2003;16:656-63
Tanabe K (*see* Kawai et al). 2003;16:110-5
Tanabe K (*see* Sumida et al). 2003;16:712-5
Tanabe K (*see* Takemoto et al). 2003;16:448-56
Tanabe K (*see* Yagi et al). 2003;16:975-81
Tanaka H (*see* Yamamoto et al). 2003;16:333-9
Tanaka N (*see* Wada et al). 2003;16:309-17
Tani T (*see* Sumida et al). 2003;16:712-5
Tani T (*see* Yagi et al). 2003;16:975-81
Tanzilli G (*see* Mangieri et al). 2003;16:942-8
Tardif J-C (*see* Guerra et al). 2003;16:982-7
Tardif J-C (*see* Vermes et al). 2003;16:355-9
Tartaglia PF (*see* Ascione et al). 2003;16:437-41
Taylor R (*see* Farrar et al). 2003;16:1316-7 (Case rep.)
Tei C (*see* Abdelrahim et al). 2003;16:1231-6
Teiger E (*see* Garot et al). 2003;16:1-8
Ten Cate FJ, Bouakaz A, Krenning B, Vletter W, de Jong N. Visualization of myocardial perfusion after percutaneous myocardial septal ablation for hypertrophic cardiomyopathy using superharmonic imaging. 2003;16:370-2 (Case rep.)
Thackray SDR (*see* Nikitin et al). 2003;16:906-21
Therrien J (*see* Silversides et al). 2003;16:1057-62
Thibault B (*see* Guerra et al). 2003;16:982-7
Thigpen T (*see* Broberg et al). 2003;16:814-23
Thomas JD (*see* Popović et al). 2003;16:703-11
Thomas JD (*see* Sitges et al). 2003;16:38-45
Thomas JD (*see* Tabata et al). 2003;16:424-31
Thomas JD (*see* Yang et al). 2003;16:233-9
Thomas P (*see* Fedson et al). 2003;16:901-5
Thomas P (*see* Sugeng et al). 2003;16:1292-1300
Thys DM (*see* Cheitlin et al). 2003;16:1091-110
Thys DM (*see* Quiñones et al). 2003;16:379-402
Tiano C (*see* Lowenstein et al). 2003;16:607-13
Tischler M, Niggel J. Left ventricular systolic torsion and exercise in normal hearts. 2003;16:670-4
Toh HS (*see* Morocutti et al). 2003;16:360-6
Tokai K, Watanabe H, Hirata K, Otsuka R, Muro T, Yamagishi H, Yoshiyama M, Hozumi T, Yoshikawa J. Noninvasive assessment of myocardial ischemia in the left ventricular inferior regions by coronary flow reserve measurement using transthoracic Doppler echocardiography. 2003;16:1252-57
Tomino T (*see* Okayama et al). 2003;16:999-1001 (Case rep.)
Toracca L (*see* Agricola et al). 2003;16:61-6
Torres AJ, Srivastava S, Parness IA, Bridges ND. Echocardiographic predictors of failure in patients undergoing coil occlusion of patent ductus arteriosus. 2003;16:1063-7
Toshida T (*see* Okazaki et al). 2003;16:738-44
Toyonaga K (*see* Abdelrahim et al). 2003;16:1231-6
Toyono M (*see* Harada et al). 2003;16:88-90 (Case rep.)
Traversi E (*see* Dini et al). 2003;16:124-31
Trento A (*see* Neuman et al). 2003;16:494-6 (Case rep.)
Tsujino H (*see* Sitges et al). 2003;16:38-45
Tsutsui JM, Hueb WA, Nascimento SA, Leal SMB, de Andrade JL, Mathias W Jr. Detection of retained surgical sponge by transthoracic and transesophageal echocardiography. 2003;16:1191-3 (Case rep.)
Tsutsui JM, Mathias W Jr, Frimm CC, Lemos PA, Leal SMB, de Andrade JL. Coronary blood flow reserve response to left anterior descending coronary artery stenting and its value in predicting coronary restenosis. 2003;16:469-75
Tuccillo B (*see* Ascione et al). 2003;16:437-41
Tuccillo B (*see* Ascione et al). 2003;16:1019-23
Tunick PA (*see* Katz et al). 2003;16:185-7 (Case rep.)
Tunick PA (*see* Kronzon et al). 2003;16:774-6 (Case rep.)
Tunick PA (*see* Reynolds et al). 2003;16:67-70
Tunick PA (*see* Reynolds et al). 2003;16:1204-10 (Review article)
Tunick PA (*see* Sethi et al). 2003;16:1078-9 (Case rep.)
Tunick PA (*see* Spevack et al). 2003;16:693-4 (Case rep.)
Tuzcu EM (*see* Schoenhagen et al). 2003;16:277-84
Twisk J (*see* Mannaerts et al). 2003;16:101-9

U

Ueda K (*see* Wada et al). 2003;16:309-17
Uematsu M (*see* Shimizu et al). 2003;16:246-53

V

Valdes-Cruz LM (*see* Cayre et al). 2003;16:84-7 (Case rep.)
Valocik G (*see* Langerveld et al). 2003;16:841-9
Van Camp G, Ay T, Pasquet A, London V, Bol A, Gisellu G, Hendrickx G, Rafter P, Melin JA, Vanoverschelde J-LJ. Quantification of myocardial blood flow and assessment of its transmural distribution with real-time power modulation myocardial contrast echocardiography. 2003;16:263-70
van der Heide JA (*see* Mannaerts et al). 2003;16:101-9
Vannan M (*see* Sheikh et al). 2003;16:1073-7 (Case rep.)
Vannan MA (*see* Loyd et al). 2003;16:770-3 (Case rep.)
Vanoverschelde J-LJ (*see* Van Camp et al). 2003;16:263-70
Van Raemdonck D (*see* Dambrauskaite et al). 2003;16:432-6
van Rossum AC (*see* Mannaerts et al). 2003;16:101-9
Varadarajan P, Jutzy KR, Pai RG. Unique Doppler pattern of "obstruction alternans" of a St Jude prosthetic mitral valve. 2003;16:890-3 (Case rep.)
Vargas-Barrón J (*see* Espinola-Zavaleta et al). 2003;16:46-53
Vargo T (*see* McMahon et al). 2003;16:1068-72
Vatsia S (*see* Makaryus et al). 2003;16:1322-25 (Case rep.)
Vegsundvåg JÅ (*see* Hole et al). 2003;16:630-7
Veinot JP (*see* Beauchesne et al). 2003;16:285-8 (Case rep.)
Veldtman GR (*see* Silversides et al). 2003;16:1057-62
Vered Z (*see* Leitman et al). 2003;16:403-8
Verleden G (*see* Dambrauskaite et al). 2003;16:432-6
Vermes E, Tardif J-C, Cartier R, Mercier L-A, Ducharme A. Cloth tears in asymptomatic survivors of aortic valve replacement with Starr-Edwards prostheses: detection by transesophageal echocardiography. 2003;16:355-9
Verrengia M (*see* Limongelli et al). 2003;16:803-7
Veyrat C, Pellerin D, Larrazet F, Cohen L. Clinical relevancy of the myocardial velocity gradient: limitations of a binary response. 2003;16:1217-25
Villanueva F (*see* Raisinghani et al). 2003;16:1037-42
Vince DG (*see* Schoenhagen et al). 2003;16:277-84
Visser CA (*see* Mannaerts et al). 2003;16:101-9
Vlahović A (*see* Popović et al). 2003;16:703-11
Vletter W (*see* Ten Cate et al). 2003;16:370-2 (Case rep.)
Vogel M (*see* Cheung et al). 2003;16:732-7
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Echocardiography, transthoracic

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Echocardiography, utilization

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Both diastolic and systolic function alternate in pulsus alternans: a case report and review (Edwards and Cohen). 2003;16:695-7 (Case rep.)
Contrast-enhanced Doppler hemodynamics for noninvasive assessment of patients with chronic heart failure and left ventricular systolic dysfunction (Dini et al). 2003;16:124-31
Doppler tissue analysis of mitral annular velocities: evidence for systolic abnormalities in patients with diastolic heart failure (Bruch et al). 2003;16:1031-6
Doppler tissue imaging reveals systolic dysfunction in patients with hypertension and apparent "isolated" diastolic dysfunction (Poulsen et al). 2003;16:724-31
Early changes in left ventricular volume and function are predictors for long-term remodeling in patients with acute transmural myocardial infarction and preserved systolic function (Hole et al). 2003;16:630-7
Incidence and characteristics of segmental postsystolic longitudinal shortening in normal, acutely ischemic, and scarred myocardium (Voigt et al). 2003;16:415-23
Left ventricular systolic torsion and exercise in normal hearts (Tischler and Niggel). 2003;16:670-4
Normal values of left ventricular systolic and diastolic function derived from signal-averaged acoustic quantification waveforms: a multicenter study (Spencer et al). 2003;16:1244-51
Prediction of postoperative left ventricular systolic function with Doppler-derived dP/dt in patients with chronic aortic regurgitation (Kang et al). 2003;16:1111-5
Rapid and accurate noninvasive assessment of global left ventricular systolic function using biplane advanced automated contour tracking method (Sugioka et al). 2003;16:1237-43
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Comparison of diagnostic quality of motion picture experts group–2 digital video with super VHS videotape for echocardiographic imaging (Harris et al). 2003;16:880-3
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Telemedicine
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Tetralogy of Fallot
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Thromboembolism
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Time
Temporal changes and histologic relation of postsystolic thick-

ening in an animal model of acute ischemia and reperfusion (Song et al). 2003;16:409-14
Temporal changes in ventricular function assessed echocardiographically in conscious and anesthetized mice (Rottman et al). 2003;16:1150-7
Temporal variations in effective orifice area during ejection in patients with valvular aortic stenosis (Beauchesne et al). 2003;16:958-64
Time requirements of the standard echocardiogram: implications regarding limited studies (Kimura and DeMaria). 2003;16:1015-8

Tissue velocity imaging
Diastolic response during dobutamine stress echocardiography evaluated by a tissue velocity imaging technique is a sensitive indicator for diagnosing coronary artery disease (Wada et al). 2003;16:309-17

Tomography, emission-computed, single-photon
Measurement of myocardial blood flow velocity reserve with myocardial contrast echocardiography in patients with suspected coronary artery disease: comparison with quantitative gated technetium 99m sestamibi single photon emission computed tomography (Dawson et al). 2003;16:1171-7

Torsion
Left ventricular systolic torsion and exercise in normal hearts (Tischler and Niggel). 2003;16:670-4

Transducers
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Transesophageal echocardiography; *see* Echocardiography, transesophageal

Transportation of patients
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Tricuspid valve insufficiency
Superiority of 10% air–10% blood-saline mixture for measuring the velocity of tricuspid regurgitation in patients with severe emphysema (Jeon et al). 2003;16:867-70

Tropomyosin
Diastolic ventricular dysfunction as a marker for hypertrophic cardiomyopathy in a family with a novel alpha-tropomyosin mutation (Earing et al). 2003;16:698-702 (Case rep.)

Tumor, lung; *see* Lung neoplasms
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Ultrasonography
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Hand-carried ultrasound-guided pericardiocentesis and thoracentesis (Osranek et al). 2003;16:480-4
Myocardial blood flow parameters derived from contrast replenishment using harmonic power Doppler imaging are underestimated by ultrasound signal attenuation (Okazaki et al). 2003;16:738-44
Myocardial contrast echocardiography (MCE) with triggered ultrasound does not cause premature ventricular complexes: evidence from PB127 MCE studies (Raisinghani et al). 2003;16:1037-42
Myocardial ultrasound tissue characterization in patients with hypertrophic cardiomyopathy: noninvasive evidence of electrical and textural substrate for ventricular arrhythmias (Limongelli et al). 2003;16:803-7
Time requirements of the standard echocardiogram: implications regarding limited studies (Kimura and DeMaria). 2003;16:1015-8
Ultrasonic analysis of anthracycline-induced myocardial damage using cyclic variation of integrated backscatter (Nagai et al). 2003;16:808-13
Unsuspected clinically important findings detected with a small portable ultrasound device in patients admitted to a general medicine service (Fedson et al). 2003;16:901-5
Will a handheld ultrasound scanner be applicable for screening for heart abnormalities in newborns and children? (Li et al). 2003;16:1007-14

Ultrasonography, intracardiac
Feasibility of transesophageal echocardiography with a ten-French monoplane probe (Orsini et al). 2003;16:682-7
Novel uses of intracardiac echocardiography with a phased-array imaging catheter (Sheikh et al). 2003;16:1073-7 (Case rep.)

Ultrasonography, intraoperative
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Ultrasonography, intravascular
Identification of atrial tissue in pulmonary veins using intravascular ultrasound (Guerra et al). 2003;16:982-7
Variability of area measurements obtained with different intravascular ultrasound catheter systems: impact on clinical trials and a method for accurate calibration (Schoenhagen et al). 2003;16:277-84

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Valves, heart; *see* Heart valves

Valvular regurgitation; *see* Aortic valve insufficiency; Mitral valve insufficiency

Vasculitis
Echocardiographic and clinical characteristics of aortic regurgitation because of systemic vasculitis (Song et al). 2003;16:850-7

Velocity, blood; *see* Blood flow velocity

Vena cava, superior
Successful surgical repair of a giant left main coronary artery aneurysm with arteriovenous fistula draining into a persistent left superior vena cava and coronary sinus: role of intraoperative transesophageal echocardiography (Makaryus et al). 2003;16:1322-25 (Case rep.)

Ventricle, heart; *see* Heart ventricle

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Ventricular function, left
Analysis of global systolic and diastolic left ventricular performance using volume-time curves by real-time three-dimensional echocardiography (Zeidan et al). 2003;16:29-37
Apical tissue tracking echocardiography for characterization of regional left ventricular function: comparison with magnetic resonance imaging in patients after myocardial infarction (Borges et al). 2003;16:254-62
Assessment of left ventricular function using mitral annular velocities in patients with congestive heart failure with or without the presence of significant mitral regurgitation (Alam et al). 2003;16:240-5
Assessment of left ventricular systolic and diastolic function by Doppler tissue imaging in patients with preinfarction angina (Baykan et al). 2003;16:1024-30
Association of severe coronary stenosis with subclinical left ventricular dysfunction in the absence of infarction (Yuda et al). 2003;16:1163-70
Contrast-enhanced Doppler hemodynamics for noninvasive assessment of patients with chronic heart failure and left ventricular systolic dysfunction (Dini et al). 2003;16:124-31
Correlation of the Tei index with invasive measurements of

ventricular function in a porcine model (LaCorte et al). 2003;16:442-7
Delayed presentation of left ventricular outflow tract aneurysm after penetrating cardiac trauma (Aikat et al). 2003;16:1085-7 (Case rep.)
Determination of left ventricular ejection fraction using intravenous contrast and a semiautomated border detection algorithm (Yu et al). 2003;16:22-8
Diastolic ventricular dysfunction as a marker for hypertrophic cardiomyopathy in a family with a novel alpha-tropomyosin mutation (Earing et al). 2003;16:698-702 (Case rep.)
Early changes in left ventricular volume and function are predictors for long-term remodeling in patients with acute transmural myocardial infarction and preserved systolic function (Hole et al). 2003;16:630-7
Evaluation of left ventricular diastolic function by pulsed Doppler tissue imaging in mice (Schaefer et al). 2003;16:1144-9
Evaluation of the longitudinal contraction of the left ventricle in normal subjects by Doppler tissue tracking and strain rate (Andersen and Poulsen). 2003;16:716-23
Interstudy reproducibility of parameters of left ventricular diastolic function: a Doppler echocardiography study (Palmieri et al). 2003;16:1128-35
Left ventricular filling patterns and pulmonary artery pressures in patients aged 90 to 100 years with normal echocardiography results (Dokainish et al). 2003;16:664-9
Left ventricular systolic torsion and exercise in normal hearts (Tischler and Niggel). 2003;16:670-4
Longitudinal ventricular function: normal values of atrioventricular annular and myocardial velocities measured with quantitative two-dimensional color Doppler tissue imaging (Nikitin et al). 2003;16:906-21
Measurement of radial artery contrast intensity to assess cardiac microbubble behavior (Sosnovik et al). 2003;16:1267-73
Mitral annulus motion compared with wall motion scoring index in the assessment of left ventricular ejection fraction (Hedberg et al). 2003;16:622-9
Noninvasive assessment of myocardial ischemia in the left ventricular inferior regions by coronary flow reserve measurement using transthoracic Doppler echocardiography (Tokai et al). 2003;16:1252-57
Normal values of left ventricular systolic and diastolic function derived from signal-averaged acoustic quantification waveforms: a multicenter study (Spencer et al). 2003;16:1244-51
Prediction of postoperative left ventricular systolic function with Doppler-derived dP/dt in patients with chronic aortic regurgitation (Kang et al). 2003;16:1111-5
Prognostic value of the atrial systolic mitral annular motion velocity in patients with left ventricular systolic dysfunction (Yamamoto et al). 2003;16:333-9
Quantification of left ventricular volumes and ejection fraction using freehand transthoracic three-dimensional echocardiography: comparison with magnetic resonance imaging (Mannaerts et al). 2003;16:101-9
Rapid and accurate noninvasive assessment of global left ventricular systolic function using biplane advanced automated contour tracking method (Sugioka et al). 2003;16:1237-43
Restrictive left ventricular filling in hypereosinophilic syndrome as a result of partial cavity obliteration by an apical mass: a strain/strain rate study (Eroglu et al). 2003;16:1088-90 (Case rep.)
The role of apically directed intraventricular isovolumic relaxation flow in speeding early diastolic left ventricular filling (Yanada et al). 2003;16:1226-30
Strain rate acceleration yields a better index for evaluating left ventricular contractile function as compared with tissue velocity acceleration during isovolumic contraction time: an in vivo study (Li et al). 2003;16:1211-6
Temporal changes in ventricular function assessed echocardiographically in conscious and anesthetized mice (Rottman et al). 2003;16:1150-7
Use of strain imaging in detecting segmental dysfunction in patients with hypertrophic cardiomyopathy (Yang et al). 2003;16:233-9
Validation of the myocardial performance index by echocardiography in mice: a noninvasive measure of left ventricular function (Broberg et al). 2003;16:814-23
A visual approach for the accurate determination of echocardiographic left ventricular ejection fraction by medical students (Hope et al). 2003;16:824-31

Ventricular function, right
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Different involvement of right ventricular myocardial function in either physiologic or pathologic left ventricular hypertrophy: a Doppler tissue study (D'Andrea et al). 2003;16:154-61
Differential changes in regional right ventricular function before and after a bilateral lung transplantation: an ultrasonic strain and strain rate study (Dambrauskaite et al). 2003;16:432-6
Unusual right ventricular flow pattern in a patient with inferior wall myocardial infarction (Spevack et al). 2003;16:693-4 (Case rep.)

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Comparison of diagnostic quality of motion picture experts group–2 digital video with super VHS videotape for echocardiographic imaging (Harris et al). 2003;16:880-3

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Wall motion
Comparison of diagnostic quality of motion picture experts group–2 digital video with super VHS videotape for echocardiographic imaging (Harris et al). 2003;16:880-3
Illusion of contraction from out-of-plane translation: can Doppler tissue velocities resolve it? (Playford et al). 2003;16:832-40
Mitral annulus motion compared with wall motion scoring index in the assessment of left ventricular ejection fraction (Hedberg et al). 2003;16:622-9
Simultaneous analysis of wall motion and coronary flow reserve of the left anterior descending coronary artery by transthoracic Doppler echocardiography during dipyridamole stress echocardiography (Lowenstein et al). 2003;16:607-13
Simultaneous assessment of wall motion and coronary flow velocity in the left anterior descending coronary artery during dipyridamole stress echocardiography (Nohtomi et al). 2003;16:457-63
Which is the better method in detecting significant left anterior descending coronary artery stenosis during contrast-enhanced dobutamine stress echocardiography: coronary flow velocity reserve or wall-motion assessment? (Takeuchi et al). 2003;16:614-21

Wounds and injuries
Chronic mitral regurgitation secondary to a perivalvular leak from remote trauma (Devarapalli and Segar). 2003;16:1082-4 (Case rep.)
Delayed presentation of left ventricular outflow tract aneurysm after penetrating cardiac trauma (Aikat et al). 2003;16:1085-7 (Case rep.)
Traumatic aortic transection with intraluminal aortic fat: transesophageal echocardiographic characteristics and implications (Sumner et al). 2003;16:1188-90 (Case rep.)